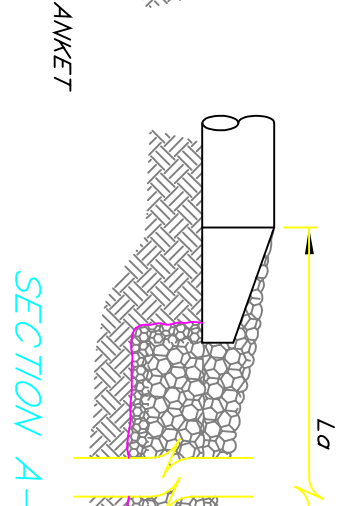
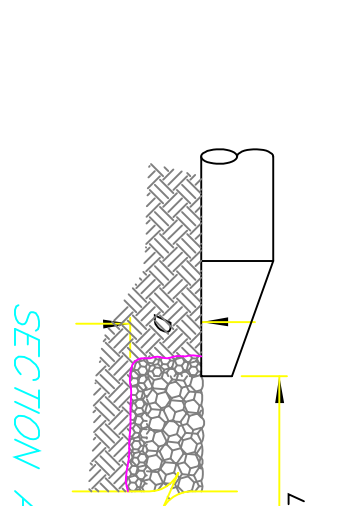
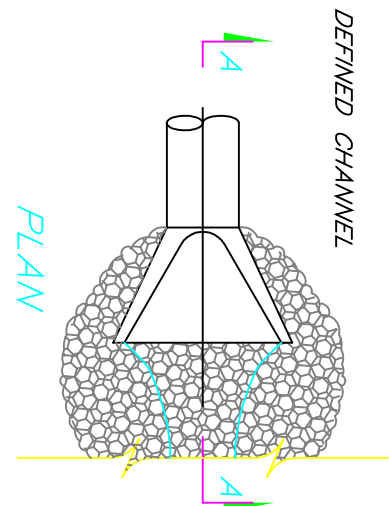
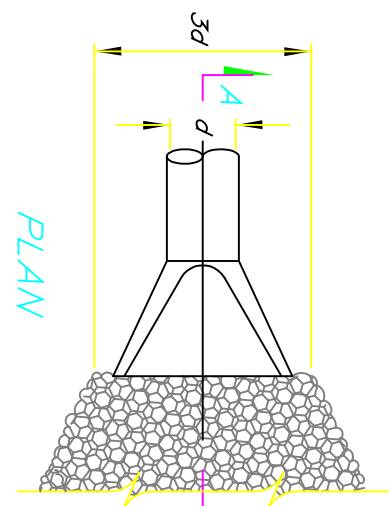


CONSTRUCTION SPECIFICATIONS:

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIP RAP FOLLOWS THE REQUIRED SLOPE. THE RIP RAP SHALL BE PLACED ON A SUBGRADE OF 2% TO 4% GRADE. THE SUBGRADE TO THE BOTTOM OF THE SURROUNDING UNDISTURBED MATERIAL FOR AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
2. THE RIP RAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
3. FILTER FABRIC, WHEN USED, MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR Tearing DURING INSTALLATION. REPAIR ANY DAMAGE BY REINFORCING OR PATCHING. THE RIP RAP SHALL BE PLACED OVER THE FILTER FABRIC. THE RIP RAP SHALL BE PLACED OVER THE FILTER FABRIC. THE RIP RAP SHALL BE PLACED OVER THE FILTER FABRIC.
4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MINIMUM STONE DIAMETER.
6. RIPRAP MAY BE FIELD STONE OR ROUND QUARRY STONE IF IT SHOULD BE HARD, ANGULAR, HIGHLY WEATHER RESISTANT AND WELL GRADED.
7. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERLAP AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLOPE 1' BELOW IT.
8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREVENTS STAGNANT THROUGHOUT ITS LENGTH. IF A CORRE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPSTREAM SECTION OF THE APRON.
9. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH REVEGETATION.
10. STONE QUALITY - SELECT STONE FOR RIPRAP FROM FIELD STONE OR QUARRY STONE. THE STONE SHALL BE HARD, WEATHER RESISTANT AND WELL GRADED. RESISTANT. THE SPECIFIC GRAVITY OF THE INDIVIDUAL STONES SHOULD BE AT LEAST 2.5.
11. FILTER - INSTALL A FILTER TO PREVENT SOIL MOVEMENT THROUGH THE OPENINGS IN THE RIPRAP. THE FILTER SHOULD CONSIST OF A GRADED GRAVEL LAYER OR A SYNTHETIC FILTER CLOTH.

MAINTENANCE

INSPECT RIP RAP OUTLET STRUCTURES AFTER HEAVY RAIN TO SEE IF ANY EROSION AROUND OR BELOW THE RIP RAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLOOED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.



NOTES:

1. L IS THE LENGTH OF THE RIP RAP APRON.
2. D = 1.5 TIMES THE MINIMUM STONE DIAMETER BUT NOT LESS THAN 6".
3. IN A WELL DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MINIMUM FLOWLINE DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

RIP-RAP OUTLET PROTECTION

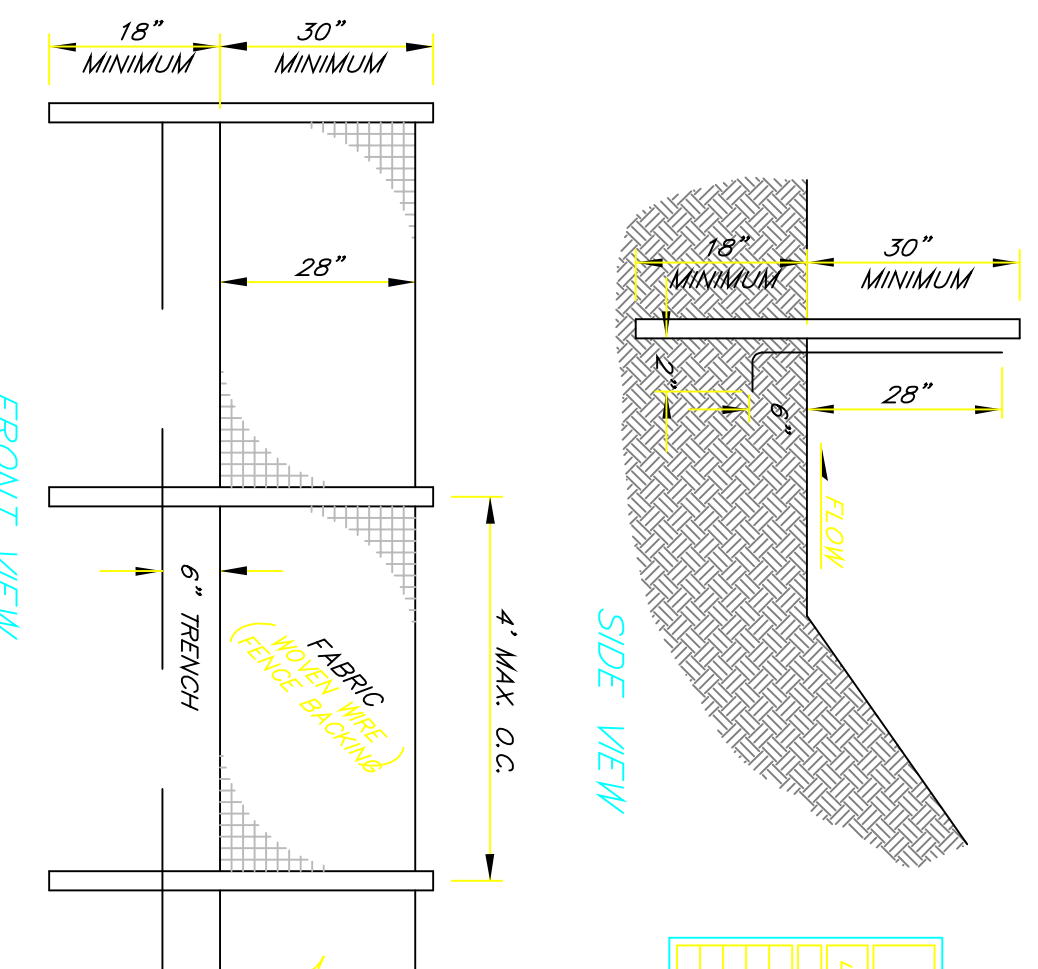
FIG. 6-17.3 (MODIFIED FROM 16 SWCD) N.T.S.

RIP-RAP OUTLET DIMENSIONS:

- OUTLET #1
- $L_o = 10'$
- $D_o = 18" = 1.5'$
- $D_o = 0.5'$
- $D_o = 1.5' \times D_o = 0.45'$
- $D_o = 1.5' \times D_o = 0.45'$
- $W(1) = 50' = 4.5'$ (WIDTH AT PIPE)
- $W(2) = D + 0.4 \times D = 2.0' + 4.0' = 6.0'$ (END WIDTH)
- * NOTE: L_o AND D_o DETERMINED FROM FIGURE 6-24.2 PAGE 6-182 OF THE MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA FIFTH EDITION.
- ** NOTE: RIP-RAP OUTLET DIMENSIONS DETERMINED FOR A MAXIMUM WATER DEPTH BECAUSE DISCHARGE IS INTO A WELL DEFINED CHANNEL.

CRITERIA FOR SEDIMENT BARRIER PLACEMENT			
LAND SLOPE	MINIMUM STONE LENGTH FEET	MINIMUM STONE DIAMETER FEET	MINIMUM STONE WEIGHT LBS
1:1	2.5	1.0	100
2:1	3.0	1.5	200
3:1	3.5	2.0	300
4:1	4.0	2.5	400
5:1	4.5	3.0	500
6:1	5.0	3.5	600
7:1	5.5	4.0	700
8:1	6.0	4.5	800
9:1	6.5	5.0	900
10:1	7.0	5.5	1000

POST SIZE			
MAX. LENGTH	TIME OF NOISE	SIZE OF NOISE	SIZE OF NOISE
TYPE "A" - 4"	100'	100'	100'
TYPE "B" - 4"	100'	100'	100'
TYPE "C" - 4"	100'	100'	100'
TYPE "D" - 4"	100'	100'	100'
TYPE "E" - 4"	100'	100'	100'
TYPE "F" - 4"	100'	100'	100'
TYPE "G" - 4"	100'	100'	100'
TYPE "H" - 4"	100'	100'	100'
TYPE "I" - 4"	100'	100'	100'
TYPE "J" - 4"	100'	100'	100'
TYPE "K" - 4"	100'	100'	100'
TYPE "L" - 4"	100'	100'	100'
TYPE "M" - 4"	100'	100'	100'
TYPE "N" - 4"	100'	100'	100'
TYPE "O" - 4"	100'	100'	100'
TYPE "P" - 4"	100'	100'	100'
TYPE "Q" - 4"	100'	100'	100'
TYPE "R" - 4"	100'	100'	100'
TYPE "S" - 4"	100'	100'	100'
TYPE "T" - 4"	100'	100'	100'
TYPE "U" - 4"	100'	100'	100'
TYPE "V" - 4"	100'	100'	100'
TYPE "W" - 4"	100'	100'	100'
TYPE "X" - 4"	100'	100'	100'
TYPE "Y" - 4"	100'	100'	100'
TYPE "Z" - 4"	100'	100'	100'



SPLIT FENCE TYPES					TIME-TESTED
WIDTH OF FENCING	USE				100'
TYPE "A" (18")	1) ON GRADE/ROADS WHERE THE LIFE OF THE PROJECT IS SHORTER THAN 10 YEARS. 2) WHERE THE SLOPE GRADIENT IS STEEPER THAN 1:1.				100'
TYPE "B" (12")	1) SLOPE GRADIENTS OF 1:1 TO 2:1. 2) SLOPE GRADIENTS OF 2:1 TO 3:1. 3) SLOPE GRADIENTS OF 3:1 TO 4:1. 4) SLOPE GRADIENTS OF 4:1 TO 5:1. 5) SLOPE GRADIENTS OF 5:1 TO 6:1. 6) SLOPE GRADIENTS OF 6:1 TO 7:1. 7) SLOPE GRADIENTS OF 7:1 TO 8:1. 8) SLOPE GRADIENTS OF 8:1 TO 9:1. 9) SLOPE GRADIENTS OF 9:1 TO 10:1. 10) SLOPE GRADIENTS OF 10:1 TO 11:1. 11) SLOPE GRADIENTS OF 11:1 TO 12:1. 12) SLOPE GRADIENTS OF 12:1 TO 13:1. 13) SLOPE GRADIENTS OF 13:1 TO 14:1. 14) SLOPE GRADIENTS OF 14:1 TO 15:1. 15) SLOPE GRADIENTS OF 15:1 TO 16:1. 16) SLOPE GRADIENTS OF 16:1 TO 17:1. 17) SLOPE GRADIENTS OF 17:1 TO 18:1. 18) SLOPE GRADIENTS OF 18:1 TO 19:1. 19) SLOPE GRADIENTS OF 19:1 TO 20:1. 20) SLOPE GRADIENTS OF 20:1 TO 21:1. 21) SLOPE GRADIENTS OF 21:1 TO 22:1. 22) SLOPE GRADIENTS OF 22:1 TO 23:1. 23) SLOPE GRADIENTS OF 23:1 TO 24:1. 24) SLOPE GRADIENTS OF 24:1 TO 25:1. 25) SLOPE GRADIENTS OF 25:1 TO 26:1. 26) SLOPE GRADIENTS OF 26:1 TO 27:1. 27) SLOPE GRADIENTS OF 27:1 TO 28:1. 28) SLOPE 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